

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
6192.0316.US

Total Pages in this Submission

**TO THE COMMISSIONER FOR PATENTS**

Mail Stop Patent Application  
P.O. Box 1450  
Alexandria, VA 22313-1450

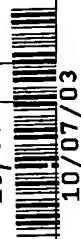
Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**METHOD OF FORMING MULTI-DOMAIN ON ALIGNMENT FILM, METHOD OF MANUFACTURING LIQUID CRYSTAL DISPLAY APPRATUS USING THE SAME, LIQUID CRYSTAL ALIGNMENT APPARATUS AND LIQUID CRYSTAL DISPLAY APPARATUS**

and invented by:

**Dae-Ho CHOO**  
**Hak-Jin KIM**  
**Hong-Gyun KIM**  
**Hwan-Kyeong JEONG**  
**Bong-Woo LEE**

22154 U.S. PTO  
10/679625



If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Enclosed are:

**Application Elements**

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 47 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications (if applicable)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
  - d. ☐ Reference to Sequence Listing, a Table, or a Computer Program Listing Appendix
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings (if filed)
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

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## Application Elements (Continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 USC 113)
- a. ☒ Formal                      Number of Sheets                      22
- b. ☐ Informal                      Number of Sheets                      \_\_\_\_\_
4. ☒ Oath or Declaration
- a. ☒ Newly executed (original or copy)                      ☐ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional application only)
- c. ☒ With Power of Attorney                      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (usable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ CD ROM or CD-R in duplicate, large table or Computer Program (Appendix)
7. ☐ Application Data Sheet (See 37 CFR 1.76)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all must be included)
- a. ☐ Computer Readable Form (CRF)
- b. ☐ Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statement(s) Verifying Identical Paper and Computer Readable Copy

## Accompanying Application Parts

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(B) Statement (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement/PTO-1449                      ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☒ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Certificate of Mailing
- ☐ First Class                      ☐ Express Mail (Specify Label No.): HAND DELIVERED

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

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**Accompanying Application Parts (Continued)**

17. ☐ Additional Enclosures *(please identify below):*

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**Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)**

18. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

***Warning***

***An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.***

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**(Large Entity)**

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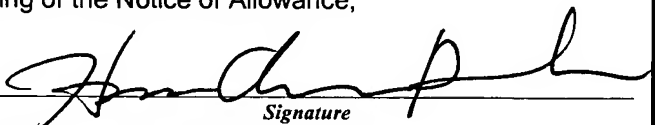
**Fee Calculation and Transmittal**

**CLAIMS AS FILED**

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	57	- 20 =	37	x \$18.00	\$666.00
Indep. Claims	6	- 3 =	3	x \$84.00	\$252.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$750.00
OTHER FEE (specify purpose)					\$0.00
TOTAL FILING FEE					\$1,668.00

- ☒ A check in the amount of **\$1,668.00** to cover the filing fee is enclosed.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **23-1951** as described below.
- ☐ Charge the amount of \_\_\_\_\_ as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated: **October 7, 2003**

  
Signature  
Hae-Chan Park, Reg. No. 50,114  
McGuireWoods LLP  
1750 Tysons Boulevard, Suite 1800  
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October 7, 2003

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RE: Application No. Unassigned  
Filed: October 7, 2003  
**METHOD OF FORMING MULTI-DOMAIN ON ALIGNMENT FILM, METHOD OF  
MANUFACTURING LIQUID CRYSTAL DISPLAY APPRATUS USING THE  
SAME, LIQUID CRYSTAL ALIGNMENT APPARATUS AND LIQUID CRYSTAL  
DISPLAY APPARATUS**  
Inventor: Dae-Ho CHOO, *et al.*  
Our Ref: 6192.0316.US

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.  
Patent and Trademark Office:

1. A Transmittal Letter;
2. A Utility Patent Application Transmittal Form;
3. A Specification containing 47 pages and 22 sheets of drawings (Figs. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40);
4. An executed Declaration and Power of Attorney;
5. A Form PTO-1595 Recordation Cover Sheet and a copy of the executed Assignment to Samsung Electronics Co., Ltd., a recordation of which is hereby respectfully requested;
6. Claim of Priority to and a certified copy of:  
Korean Patent Application No. 10-2003-0023382 filed April 14, 2003;
7. Our check no. 134145 in the amount of \$1668.00 to cover the filing fee and our check no. 134067 in the amount of \$40.00 to cover the assignment recordation fee; and
8. Two acknowledgement postcards.

It is respectfully requested that the attached copy of the postcard be stamped with the filing date of these documents and returned to our courier.

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U.S. Patent & Trademark Office  
October 7, 2003  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 23-1951 referencing docket number 6192.0316.US.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Hae-Chan Park', written in a cursive style.

Hae-Chan Park  
Reg. No. 50,114

HCP/tmk  
Enclosures